LISTING OF THE CLAIMS

The following Listing of the Claims replaces all prior listings of the claims in this application.

Listing of Claims:

1-14 (Cancelled)

15. (Previously Presented) A compilation method for collecting frequencies with which each process is executed in a program to be optimized and optimizing said program based on the collected frequencies, said method having:

a loop process detection step of detecting a repeatedly executed loop process of said program;

a loop process frequency collection step of collecting loop process frequencies with which said loop process is executed in said program;

an in-loop process frequency collection step of collecting in-loop process frequencies with which, as against the number of times of execution of said loop process, each of a plurality of in-loop processes included in said loop process is executed;

an in-loop execution information generating step of, based on said loop process frequencies and said in-loop process frequencies, generating in-loop execution information indicating the frequencies with which each of said plurality of in-loop processes is executed in the case where said program is executed; and

an optimization step of optimizing said program based on said in-loop execution information generated by said in-loop execution information generating portion,

the in-loop executing information generating step further determining whether said loop process frequencies are higher than a predetermined reference frequency, and determining number of times of execution of said each of a plurality of in-loop processes.

16-22. (Cancelled)

23. (Previously Presented) A runtime information generating method comprising:

collecting frequencies with which each process is executed in a program to be optimized, said step of collecting frequencies comprising:

detecting a repeatedly executed loop process of said program;

collecting loop process frequencies with which said loop process is executed in said program;

collecting in-loop process frequencies with which, as against the number of times of execution of said loop process, each of a plurality of in-loop processes included in said loop process is executed;

based on said loop process frequencies and said in-loop process frequencies, generating in-loop execution information indicating the frequencies with which each of said plurality of in-loop processes is executed in the case where said program is executed, and optimizing said program based on said in-loop execution information generated by said in-loop execution information generating portion,

said generating further determining whether said loop process frequencies are higher than a predetermined reference frequency, and determining number of times of execution of said each of a plurality of in-loop processes if said loop process frequencies are higher than a predetermined reference frequency.

24-25. (Cancelled)